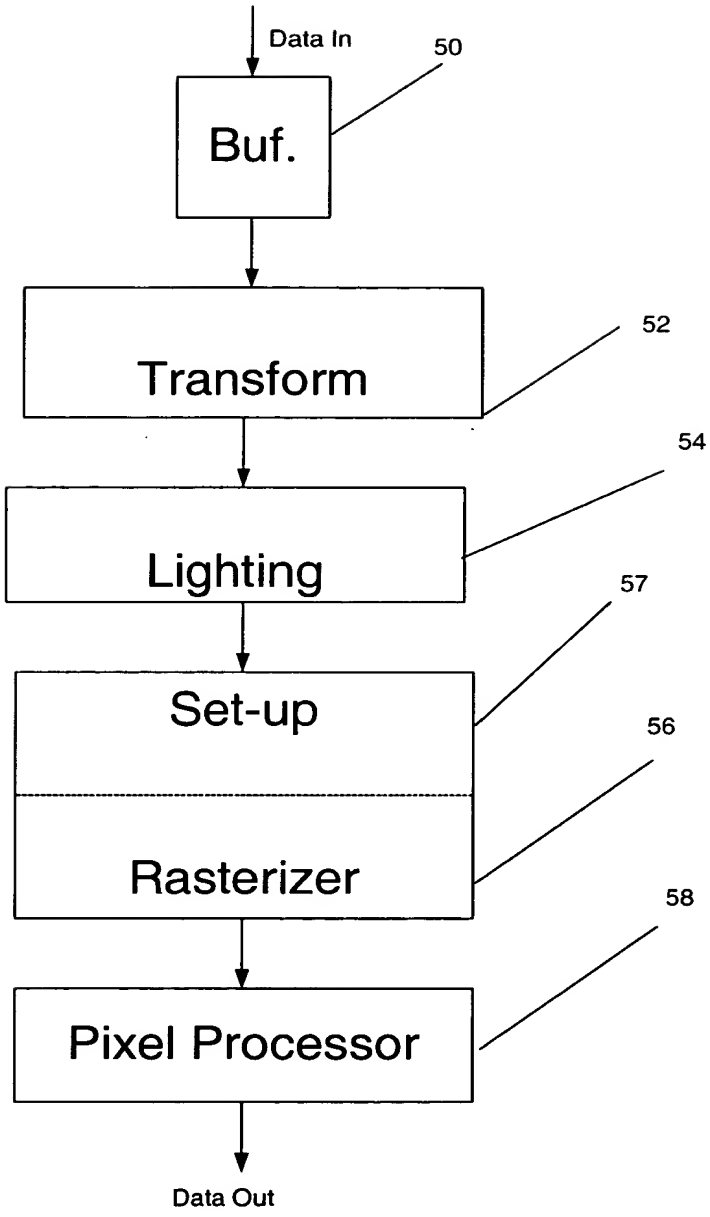
Data In
50
Buf.
Transform
52
54
Lighting
57
Set-up
56
Rasterizer
58
Pixel Processor
Data Out

Figure 1

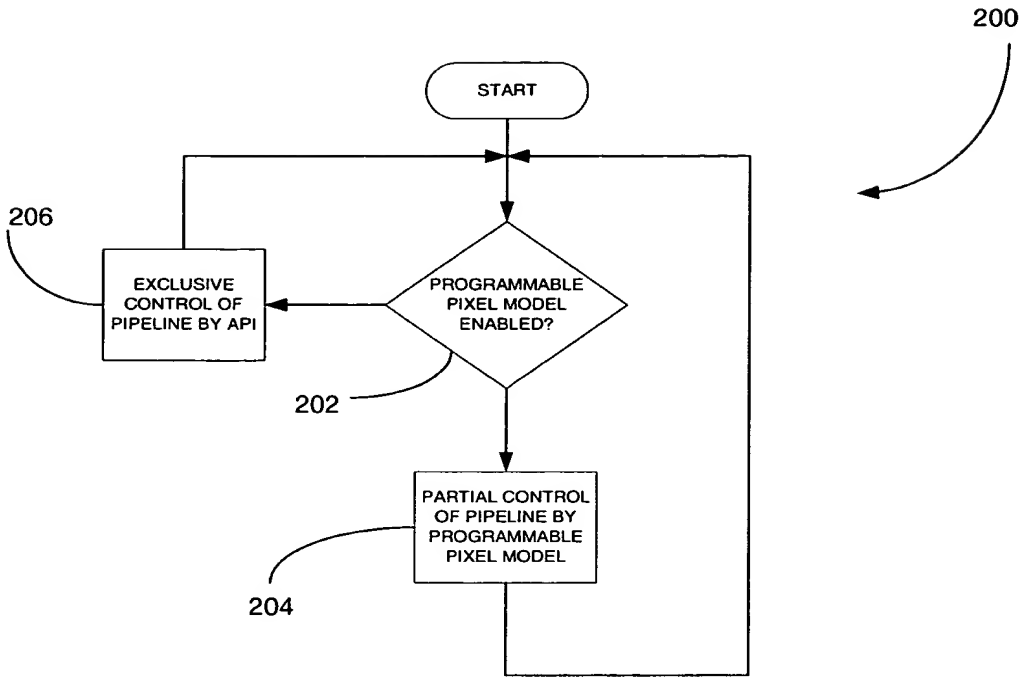
200
START
206
EXCLUSIVE CONTROL OF PIPELINE BY API
PROGRAMMABLE PIXEL MODEL ENABLED?
202
PARTIAL CONTROL OF PIPELINE BY PROGRAMMABLE PIXEL MODEL
204

Figure 2

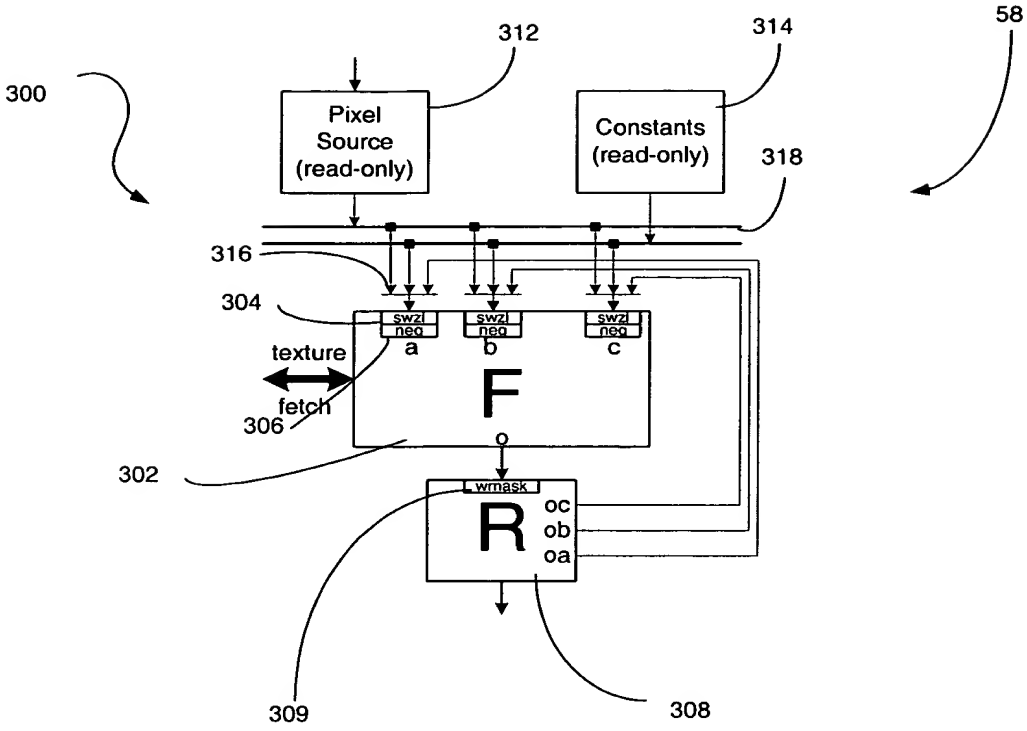
300
312
314
58
Pixel Source (read-only)
Constants (read-only)
318
316
304
swzl
neg
a
b
c
texture
fetch
306
F
o
302
wrmask
R
oc
ob
oa
309
308

Figure 3

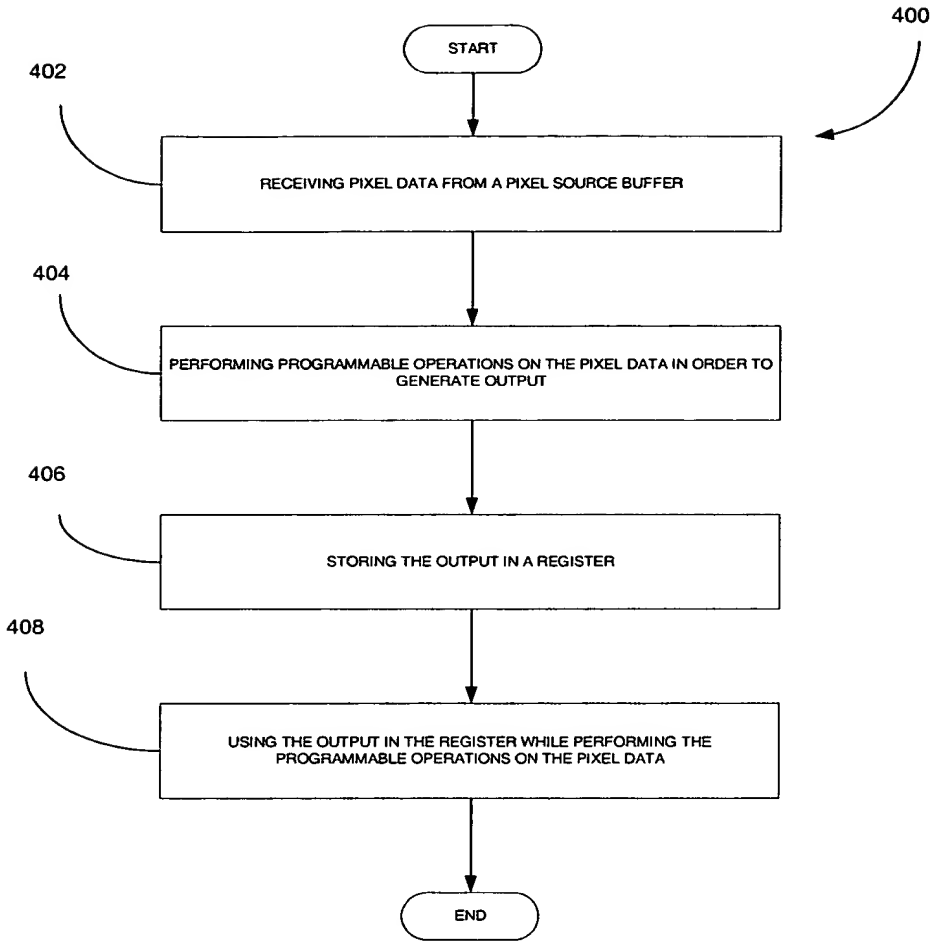
400
START
402
RECEIVING PIXEL DATA FROM A PIXEL SOURCE BUFFER
404
PERFORMING PROGRAMMABLE OPERATIONS ON THE PIXEL DATA IN ORDER TO GENERATE OUTPUT
406
STORING THE OUTPUT IN A REGISTER
408
USING THE OUTPUT IN THE REGISTER WHILE PERFORMING THE PROGRAMMABLE OPERATIONS ON THE PIXEL DATA
END

Figure 4

500

Slot	Attribute	Description
0	Position	X,Y,Z,1/W
1	Diffuse Color	R,G,B,A
2	Specular Color	R,G,B,A
3	Fog Distance	F,0.0,0.0,1.0
4	Texture0	S,T,R,Q
5	Texture1	S,T,R,Q
6	Texture2	S,T,R,Q
7	Texture3	S,T,R,Q
8	Texture4	S,T,R,Q
9	Texture5	S,T,R,Q
10	Texture6	S,T,R,Q
11	Texture7	S,T,R,Q

Figure 5

600

OPCODE	INPUT(scalar or vector)	OUTPUT(scalar or vector)
NOP		
TEX,TXP	v	v
TXD	v,v,v	v
DDX,DDY	v	v
MOV	v	v
MUL	v,v	v
ADD	v,v	v
MAD	v,v,v	v
RCP	s	ssss
RSQ	s	ssss
DP3	v,v	ssss
DP4	v,v	ssss
DST	v,v	v
MIN,MAX	v,v	v
PK2,PK4	v	s
UP2,UP4	s	v
SLT,SGE	v,v	v
FRC,FLR	v	v
KIL	RC	
EXP	s	v
LOG	s	v
LIT	v	v

Figure 6